The Green ~~R~~evolution

November 2011

grail research
a division of Integreon

Context

- In 2009, we undertook a study to understand how the green consumer product market was growing, including evaluating the different types of green consumers and the key attributes they associated with green products
- Since then, the market has clearly evolved. There are now more green products entering the market, increasing competition and consumers sophistication on the topic.
- As a result, we completed a new study to evaluate how the market has changed across the aspects tested in our original report as well as dive-deeper into several new topics, such as:
  - How to effectively communicate how your products or brands are "green" to consumers
  - How consumers' purchase behavior changes depending on the green category

Consumer Attitudes Toward Green Do Not Exist in a Bubble

Key Macro Trends in the US (2009 - Present)

Macro Trends	2009	2010		Jul/Aug 2011	
Annual Unemployment Rate	9.3%	9.6%	↑	9.1%	↓
Inflation Rate	-0.3%	1.6%	↑	3.6%	↑
Consumer Price Index for All Urban Consumers (CPI-U): Food and Beverages	218.249	219.984	↑	225.576	↑
Dow Jones Industrial Average Historical Prices (close)[1]	10,428	11,577	↑	11,433[2]	↓
Average Crude Oil Prices[3] (USD Per Barrel)	60.07	77.68	↑	101.66[4]	↑
Federal Funds Effective Rate[5]	0.16%	0.18%	↑	0.09%	↓
Conference Board Consumer Confidence Index (Month of June)	45.4	54.5	↑	44.5	↓

The market has been volatile for both companies and consumers.

This type of environment will have an impact on almost all product categories.

Note: [1]*As of December 31, 2011;* [2]*As of September 15, 2011;* [3]Imports Landed; [4]*Average for the year as of Aug 26, 2011;* [5]*Federal funds rate is the interest rate at which depository institutions lend balances to each other overnight. The daily effective federal funds rate is a volume-weighted average of rates on trades arranged by major brokers. The effective rate is calculated by the Federal Reserve Bank of New York using data provided by the brokers*

Source: CIA Factbook; Department of Labor; US Inflation Calculator; Bureau of Labor Statistics; US Energy Information Administration; The Conference Board CCI

What Does That Mean for the Green Market?

Since we started following the green market in 2009, we have seen an increase in the availability of green products and spend on green advertising. But what has changed in terms of consumer behavior?

	What… does the data say?	So What… does that mean?	Now What… does that mean for me?
1	The recession impacted consumers' behavior: the 'dark green'[1] consumer segment grew slightly, but the total number of green consumers declined	With continued economic uncertainty, the population of green consumers may dip even more: being green is not a guarantee for growth	**Being Green is Not Enough** As opposed to previous years, growth will come from green products being comparable on value and having superior product performance
2	Those who haven't switched to green yet are unlikely to change in the near future	Green as a whole is no longer a fast growth market, although some categories are better than others	**The Fight is for Share** For most product categories, growth will come from getting consumers to switch from competing products
3	Most consumers do not actively seek out information about the greenness of products	The volume of green product and brand information is not proportional to its impact on consumer behavior	**Packaging Matters Most** Green messaging on packaging is highly visible and one of the key places consumers look for information about the greenness of a product
4	While certifications matter, most US consumers are confused about what they mean	More certifications are not necessarily better. Consumers welcome more direction on their purchase decisions	**Provide Guidance to Consumers** There is an opportunity for brands to create their own rating system or to adapt selectively to the leading standards
5	Competition across green products and brands is increasing	With every product claiming a green attribute, consumers find it hard to differentiate	**Clarify Product and Brand Claims** Improve messaging by making claims more relatable to consumers' everyday lives

Note: [1]Definitions of 'light green' and 'dark green' consumers can be found on page 5

Change in Green Behavior

The prolonged economic recession has resulted in a reduced number of ‘light green’ consumers while the ‘dark green’ consumer segment has remained virtually unaffected

Overall Purchase Behavior

Non-Green Consumers

Non Considerers

I understand what green products are but have *never considered buying* them

Green Considerers

I have considered buying green products but *have never* actually *bought* them

Green Consumers

Former Green

I *used* to buy green products earlier, but have NOT bought them recently

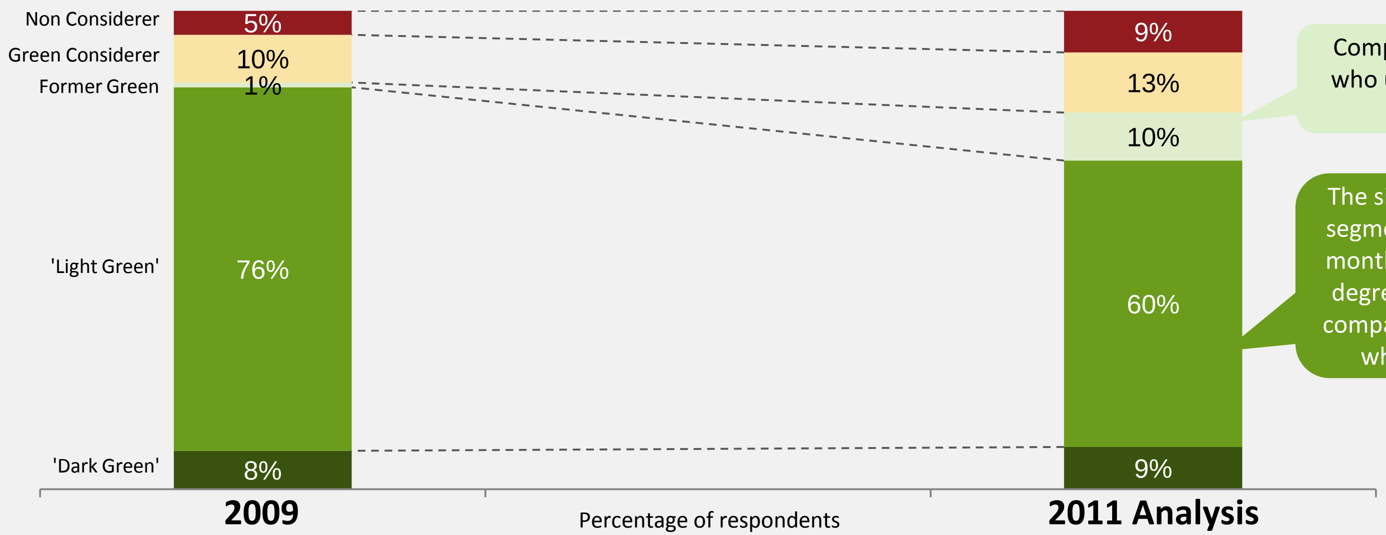
'Light Green'

Some of the products I currently buy are green

'Dark Green'[1]

Most of the products I currently buy are green

Breakdown of Consumers, by Green Purchase Behavior



Compared to 2009, more consumers who used to buy green have stopped doing so

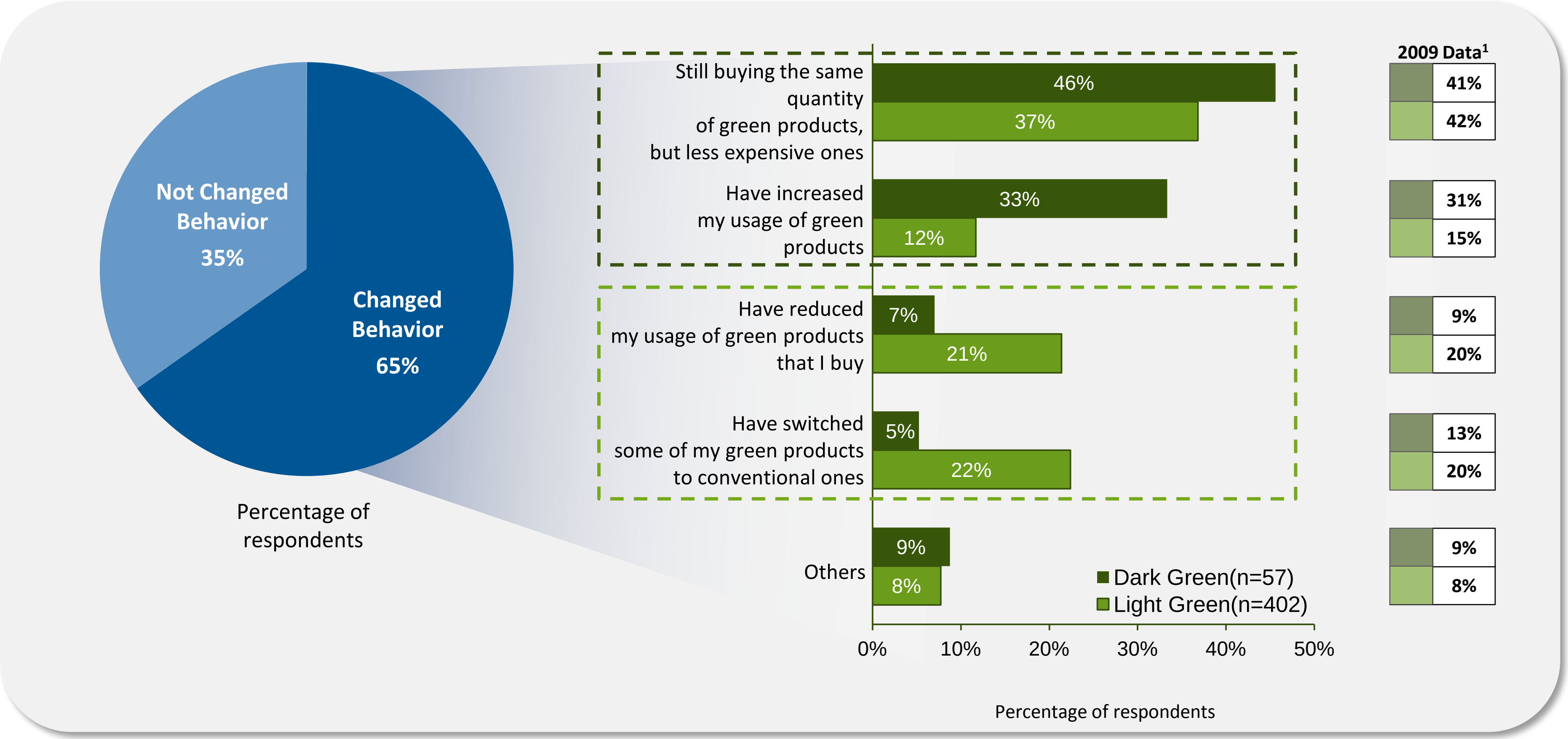
The size of the 'light green' consumer segment has decreased in the past 12 months, potentially indicating a lower degree of loyalty to green, especially compared to the 'dark green' segment whose size remained unaltered

Note: [1]This is a combination of two groups: Most of the products I currently buy are green and I buy only green products
S7: Please select the option that best describes your purchase behavior of green products. Consider only those green items purchased by you or by someone in your household.

Impact of Recession on Green Purchasing

Green consumers' behavior has been influenced by the recession. Most 'light green' consumers (43%) have reduced their usage of green products or switched to conventional ones, while the vast majority of 'dark green' consumers have remained true to green

Impact of Economic Recession on Green Shopping (n = 800)



Note: [1]*Source: 2009 The Green Revolution Study*

Q6: Please select the option that best describes the impact of the economic recession on your shopping behavior for green products?

Perception of Green Products

The key attributes that shape consumers' perceptions of a green product are centered around natural ingredients, the recyclability of the product or packaging and green certifications

Consumer Perception of Green Products (n = 800)

Consumers are becoming more sophisticated about what it means to be green. They have more green top of mind attribute associations now than in 2009 (12 vs. 7)

However, with the exception of green certifications gaining recognition, the top 3 attributes remain similar:

Recyclability

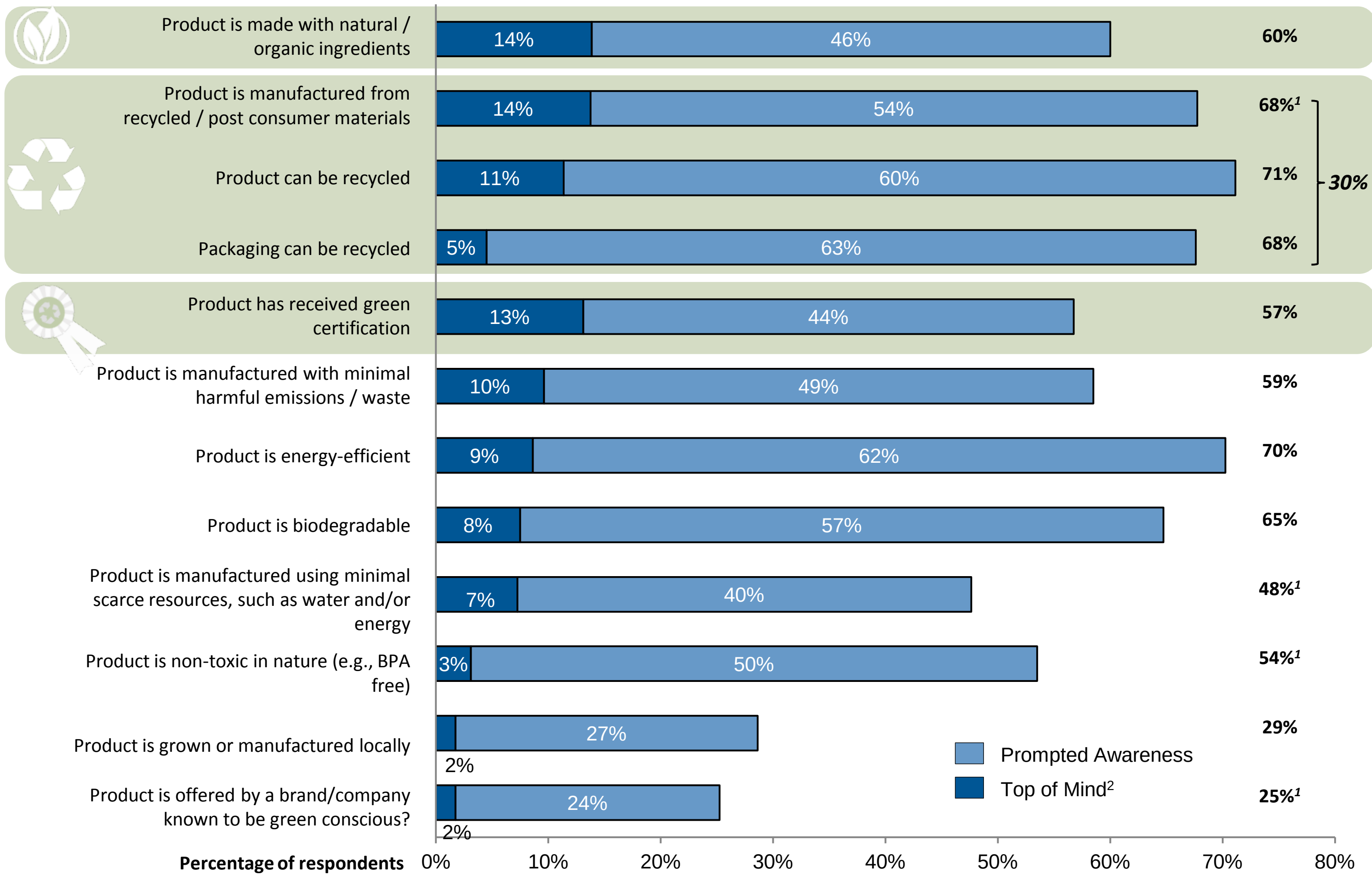
#1 in top of mind awareness with 30% compared to #2 and 23% in 2009

Natural Ingredients

#2 in top of mind awareness with 14% compared to #3 and 21% in 2009

Green Certifications

#3 in top of mind awareness with 13% compared to #6 and 7% in 2009

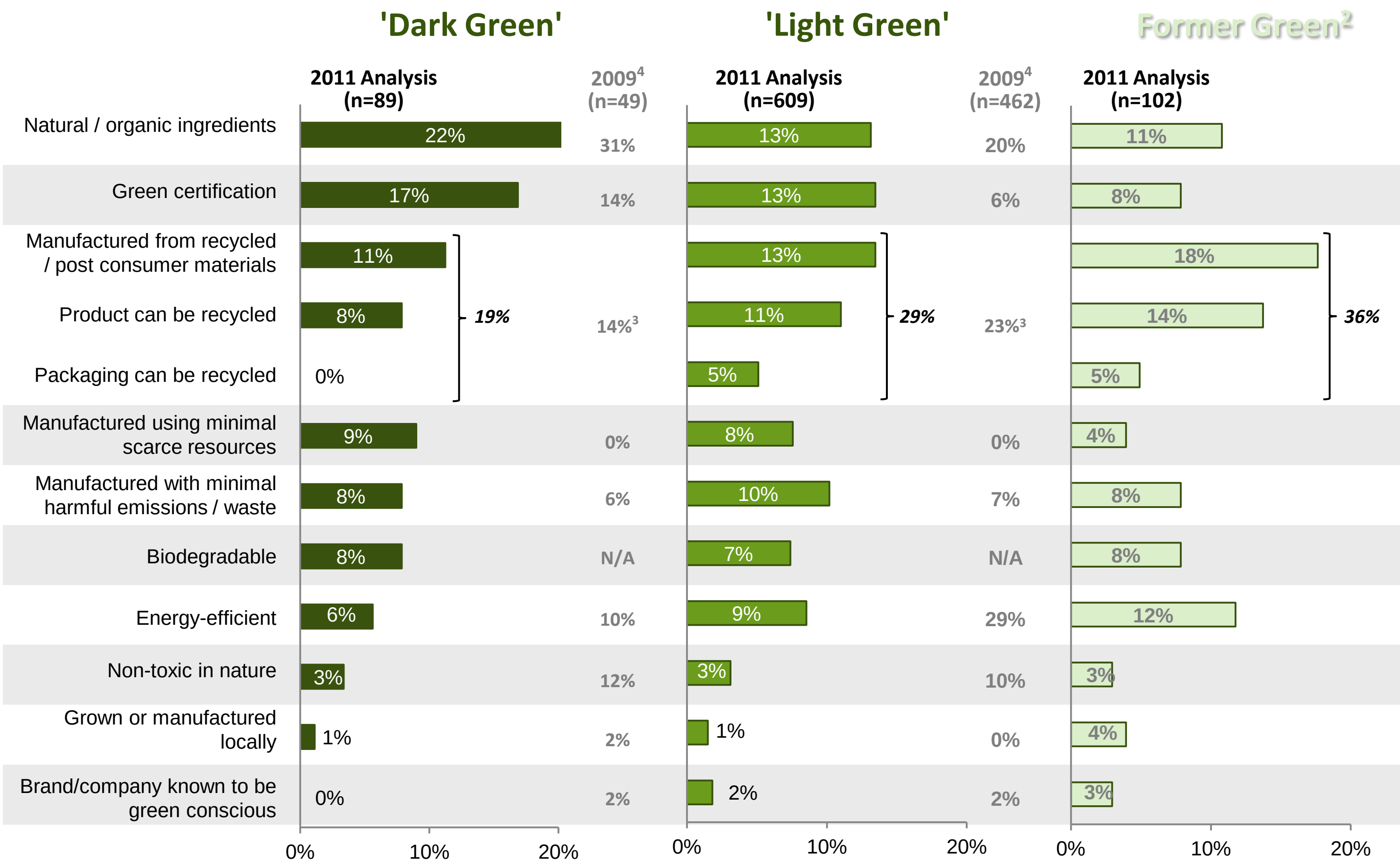


Note: [1] Rounded by using original data; [2]'Other' option was removed from the chart, which was selected by 3.75% of the sample respondents
S5: Which of the following statements best describe your top of mind perception of a green product?
S6: What other things come to your mind when you think of a green product?

Shades of Green – Consumer Perception

When analyzed at a segment level, 'dark green' consumers most associate green to products with natural ingredients, while 'light' and former green consumers associate green with recyclability

Top of Mind[1] Associations with Green Products (2009 & 2011 Analysis)



'Dark green' consumers associate green with natural ingredients first, followed by recyclability and green certification

'Light green' consumers associate green with recyclability first, followed by natural ingredients and green certification

Former green consumers associate green the most with the recyclability of the products

Note: [1]'Other' option was removed from the tables; [2]The sample size of 2009 former green was too small to provide valid result; [3]In the 2009 study the corresponding option was "Made of recyclable or re-usable material/packaging"; [4]*Source: 2009 The Green Revolution Study*

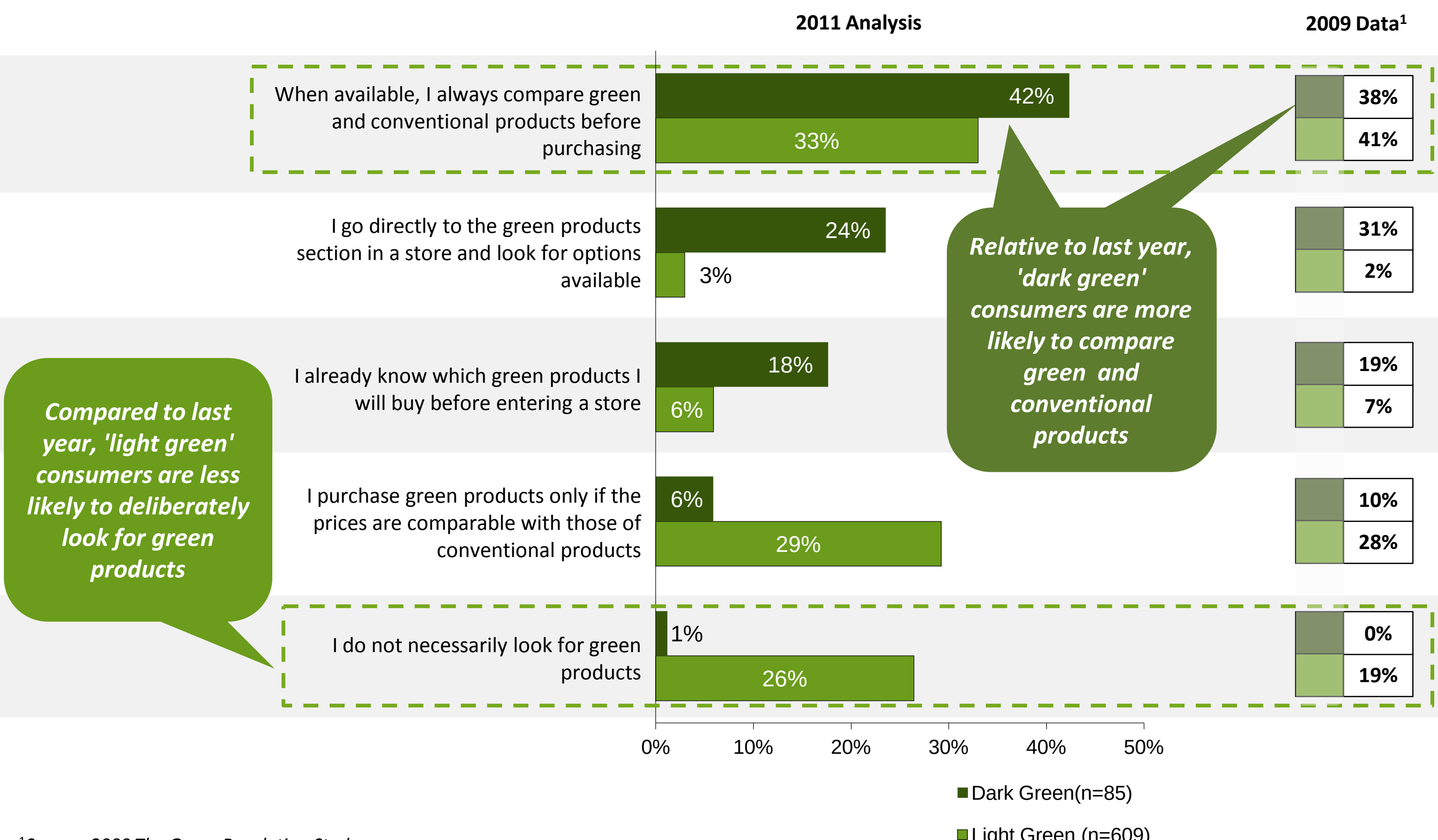
S5: Which of the following statements best describe your top of mind perception of a green product?

S6:What other things come to your mind when you think of a green product? (Multiple responses accepted)

Green Buying Behavior

While 'dark green' consumers have not significantly changed their in-store buying behavior, 'light green' consumers are now less likely to specifically look for green products

In-Store Green Purchasing Behavior (2009 & 2011 Analysis)



Total % of green consumers

2009 (n=510)	2011 Analysis (n=694)
41%	34%
5%	5%
8%	7%
26%	26%
17%	23%

Note: [1]*Source: 2009 The Green Revolution Study*
Q1: Which of the following statements best describes your green purchase behavior when you are in a store?

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Future Purchase Potential of Green Products

Green is an entrenched position: those who haven't switched to green yet are unlikely to change. Green electronics, large appliances and automobiles seem to be the product categories with the highest potential for future growth

Conversion to Green[1]		Currently Do Not Buy: Will Not Buy (In The Future)	Currently Do Not Buy: Will Buy (In The Future)	Currently Buy: Will Buy (In The Future)	Currently Buy: Will Not Buy (In The Future)	Stickiness to Green[1]	Change in Current Green Buyers from 2009[2]
35%	Paper Products	11%	6%	81%	3%	96%	13% ↑
37%	Cleaning Products	12%	7%	80%	2%	98%	-1% ↓
25%	Fruits and Vegetables	18%	6%	74%	2%	97%	9% ↑
31%	Small Appliances/Household Accessories	18%	8%	71%	3%	96%	NA*
22%	Dairy Products	32%	9%	57%	2%	97%	15% ↑
19%	Packaged Food Products	34%	8%	55%	3%	95%	19% ↑
23%	Meat/Fish/Poultry Products	36%	11%	52%	1%	98%	15% ↑
39%	Large Appliances	30%	19%	50%	1%	98%	NA*
21%	Health and Beauty Products	41%	11%	47%	1%	98%	7% ↑
33%	Electronics	39%	19%	41%	1%	98%	NA*
15%	Mass-Market Apparel	63%	11%	24%	2%	92%	NA*
10%	Pet food Products[3]	70%	8%	20%	2%	91%	NA*
21%	Furniture / Furnishings	66%	18%	16%	1%	94%	NA*
37%	Automobiles[3]	54%	32%	14%	0%	100%	9% ↑
8%	Baby Food Products[3]	85%	7%	7%	1%	88%	NA*
4%	Luxury Apparel	90%	4%	5%	1%	83%	NA*

Will Buy (In The Future)
Will Not Buy (In The Future)

Note: [1]'Conversion to Green' illustrates the percentage of consumers who will start buying green in a particular category in the future, although they currently do not. 'Stickiness to Green' illustrates the percentage of people who will continue to buy green in a category. Both are calculated by dividing the percentage of people who 'will buy in the future' by the total percentage of people who are currently not buy or currently buying in that category, respectively; [2]*Source: 2009 The Green Revolution Study*; [3] Based on the number of respondents who have purchased baby food in the past two years, have purchased pet food in the past two years or own a car; *There was no corresponding product category in 2009 Q2: For which of the following product categories do you buy, or have you ever bought, green products?; Q4: Among the green products you currently buy, do you plan to stop buying green products in any of these categories in the future?; Q5: You indicated that you have **not** purchased green products in the following categories. Do you plan to buy green products in any of these categories in the future?

Reasons for Not Pursuing Green in New Categories

Price is by far the main reason why consumers have not embraced green. The economic recession has also deterred green consumers from buying green products in new categories

Non-Green Consumers

Non Considerers

I understand what green products are but have *never considered buying* them

Green Considerers

I have considered buying green products but *have never* actually *bought* them

Top 5 Reasons for Non-Green Consumers for Never Buying Green Products in Certain Categories (n=216)

1. **Too expensive (74%)**
2. **Low availability (34%)**
3. Never felt the need to buy any (33%)
4. Limited-choices of variants (28%)
5. Do not trust the quality (17%)

Green Consumers

Former Green

I *used* to buy green products earlier, but have NOT bought them recently

'Light Green'

Some of the products I currently buy are green

'Dark Green'

Most of the products I currently buy are green

Top 5 Reasons for Green Consumers for Never Buying Green Products in Certain Categories (n=760) [1]

1. **Economic recession (43%)**
2. **Not worth the price (42%)**
3. **Low availability (33%)**
4. No needs (27%)
5. Poor product reviews (6%)

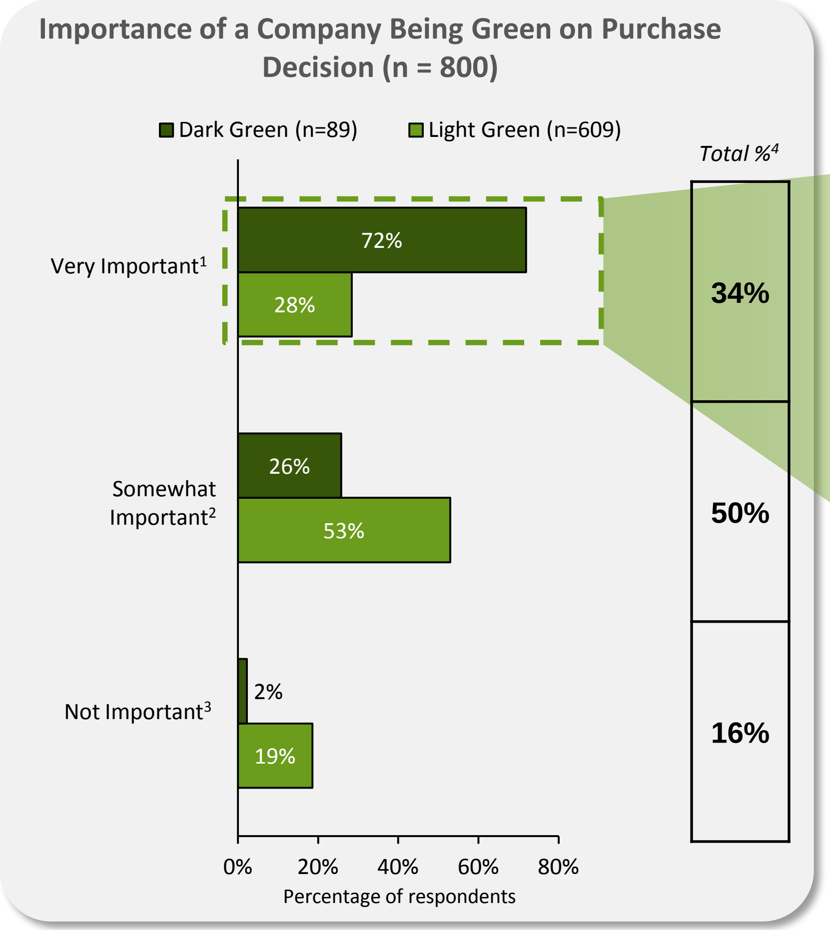
Top 5 Reasons for Green Consumers to Stop Buying Green Products in Certain Categories (n=72)

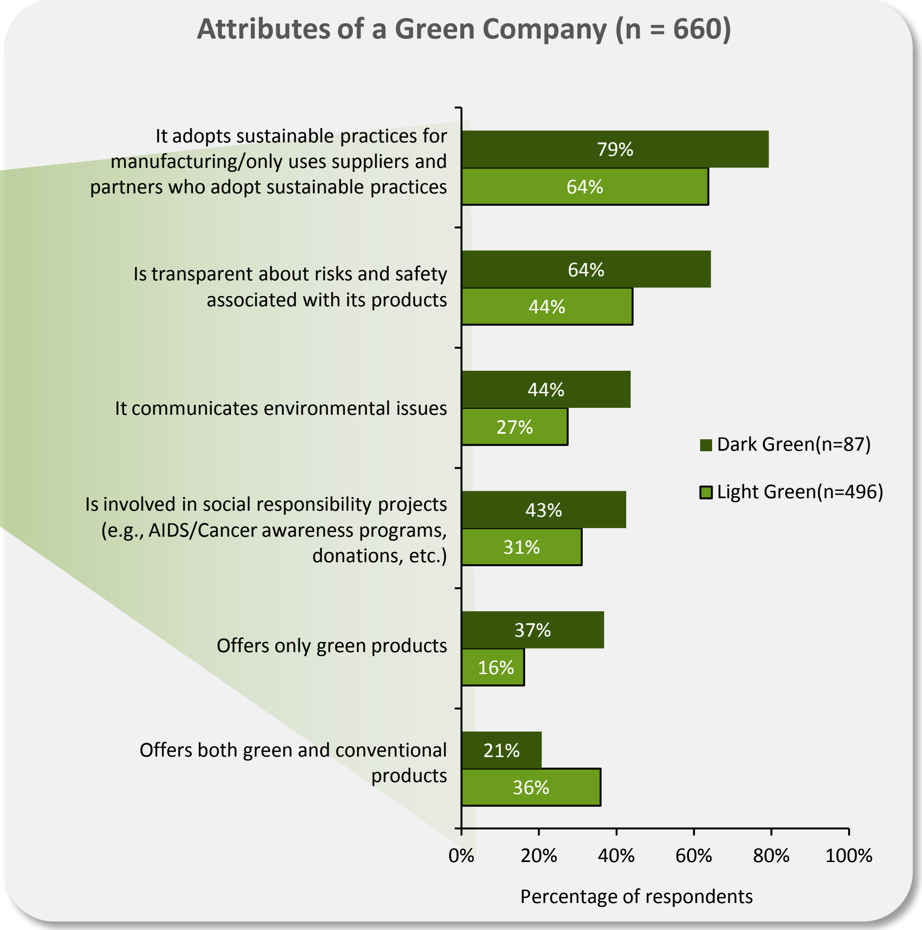
1. **Not worth the price (33%)**
2. **Low availability (28%)**
3. **No longer affordable (26%)**
4. **Economic recession (25%)**
5. Low effectiveness (25%)

Note: [1] Former greens are not included in the chart, hence the total N is not matching with the individual Ns of the chart.
S8: Please select the top 3 reasons you would choose to NOT buy green products
Q4a: You indicated that you would stop buying certain green products in the future. Please select your reasons for discontinuing the purchase of these products from the following options
Q5b: Currently, you are not buying certain green products and have mentioned that you would not buy them in the future either. Please select your reasons for not buying these products from the following options

Important Green Attributes for Companies

Consumers evaluate companies and products differently when it comes to being green. Adopting sustainable manufacturing practices is perceived as the most important green attribute for companies





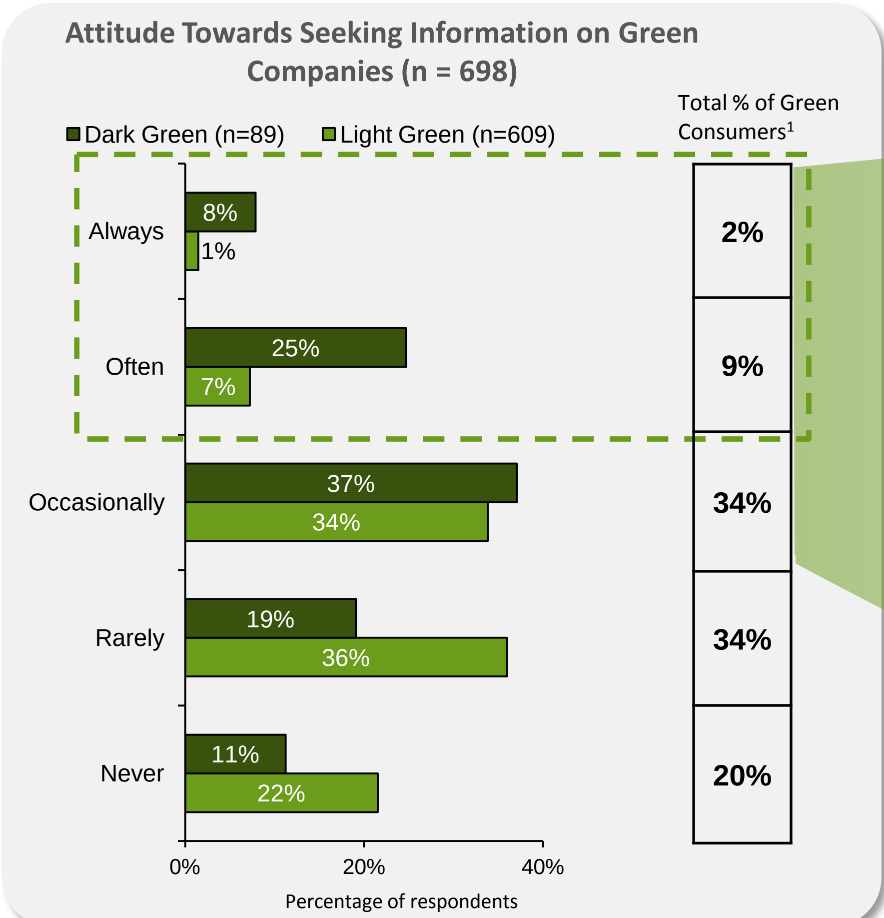
Note: [1] Top 2 boxes (Very Important, Extremely Important); [2]Box 3 (Somewhat Important), [3] Bottom 2 boxes (Not at all Important, Not that Important); [4]Total % on all green consumers, 'light' and 'dark' groups (N=698)

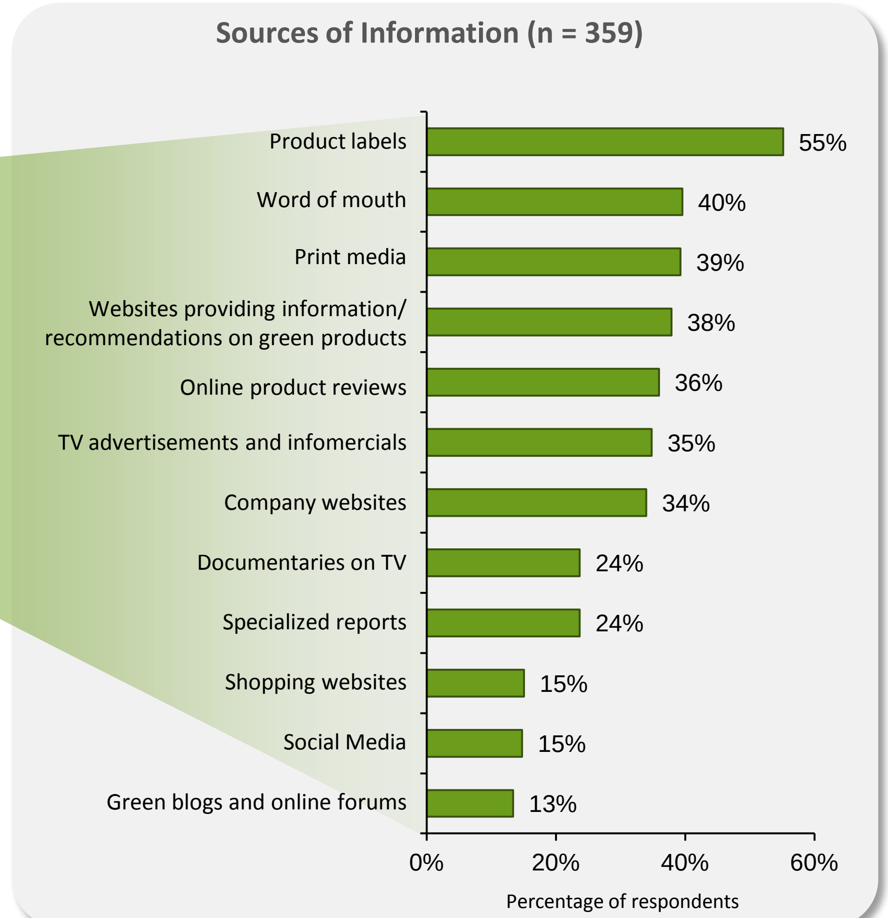
Q11: In general, how important it is that a company is green and adopts sustainable practices in your decision to buy its products?

Q12: Which, if any, of the following green practices adopted by a company influences your decision to purchase a product from that company? (Multiple responses accepted)

Sources for Information on Green Companies

Although consumers state they care about companies being green, only 11% reported seeking information about green products and practices on a regular basis. Mainly consumers rely on the sources of information that are most convenient or commonly presented to them, such as product labels



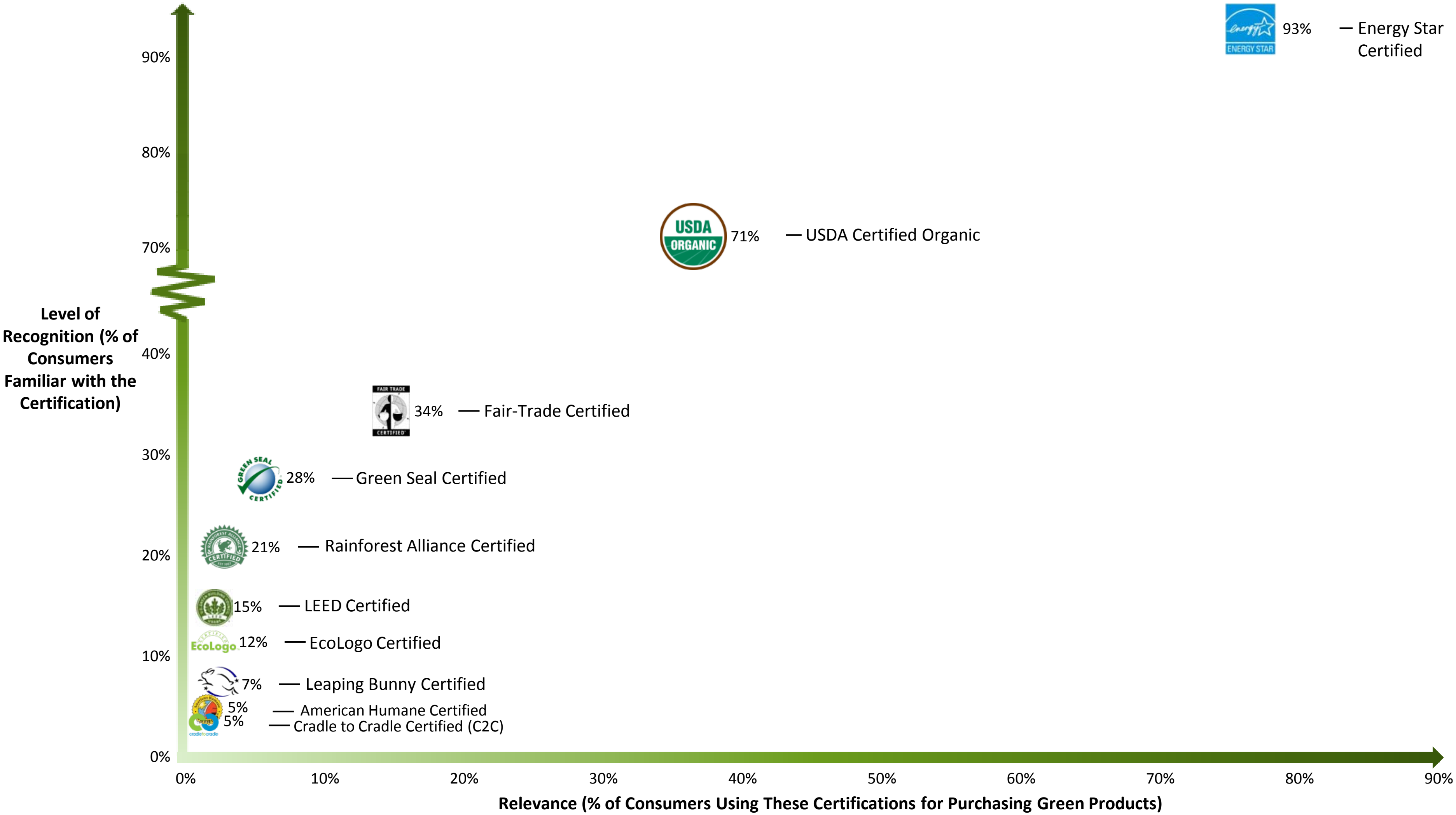


Note: [1]Total % on all green consumers, 'light' and 'dark' groups (N=698)
Q13 a: Do you look for information about companies' green initiatives?
Q13 b: In general, what source do you primarily use when looking for more information about a green company and its products?

Communicating Green: Role of Certifications

Consumers are confused about certifications and most do not understand their relevance. There is a need for different evaluators or certifications with better education behind them

Top Green Certifications Recognized by Consumers (Aided)



Q7: Which of the following green certifications are you familiar with?; Q7a: Of the green certifications you are familiar with, which have you actually sought out when purchasing a product?

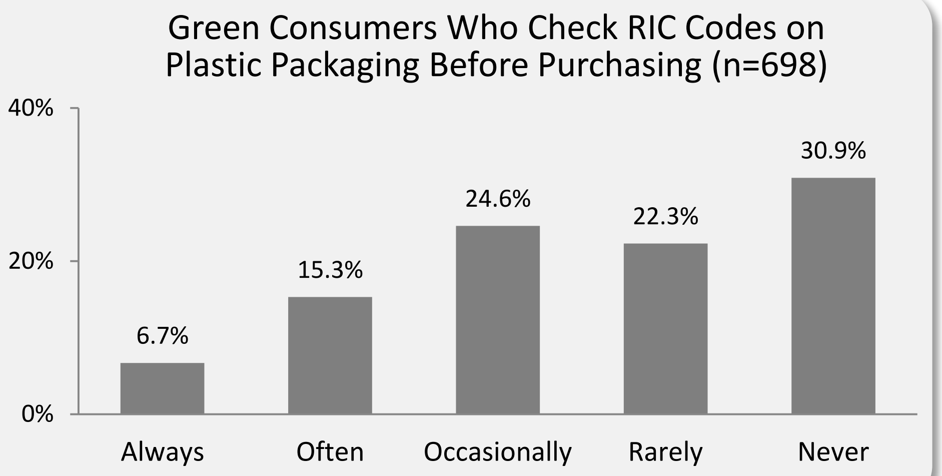
Communicating Green: Symbols & Standards

Most consumers look on product packaging for information about the greenness of the product. As an example, the vast majority of consumers believe that some plastics are easier to recycle than others, and look to the RIC codes (Resin Identification Codes) on plastic products even though they are not intended for consumer use

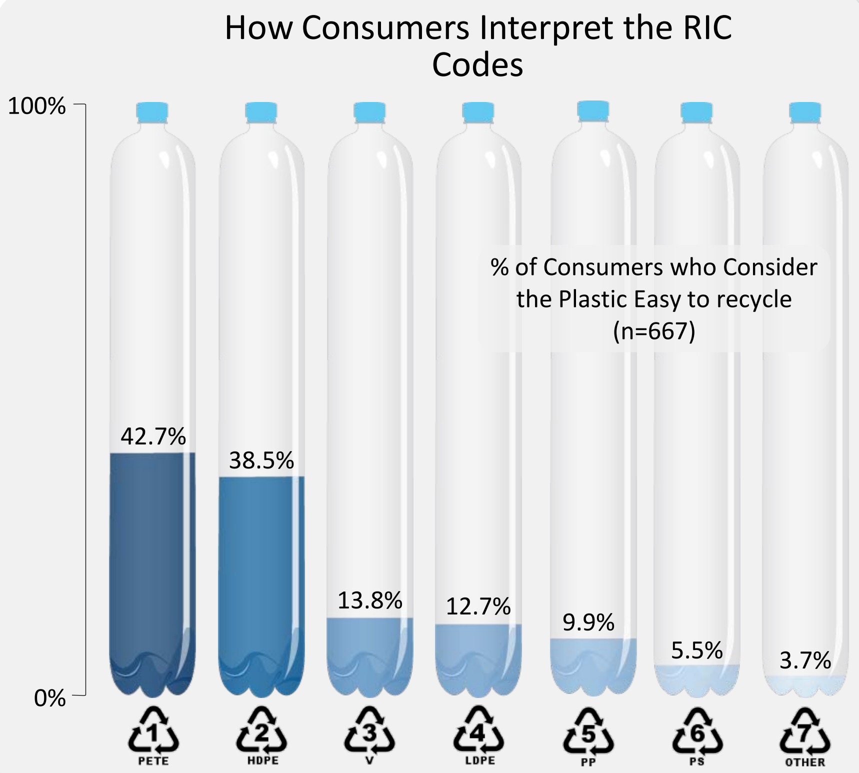
Are Some Plastics Easier to Recycle Than Others? (n=800)

83% yes

17% no



In fact, RIC codes do not correlate to any specific level of recyclability



Q8 When purchasing a product sold in plastic containers, do you check for the symbol on the bottom of the packaging **before** purchasing the product? Q8a Are some types of plastic easier to recycle than other, based on your knowledge?Q8b Which of the following types of plastics are considered easier to recycle?

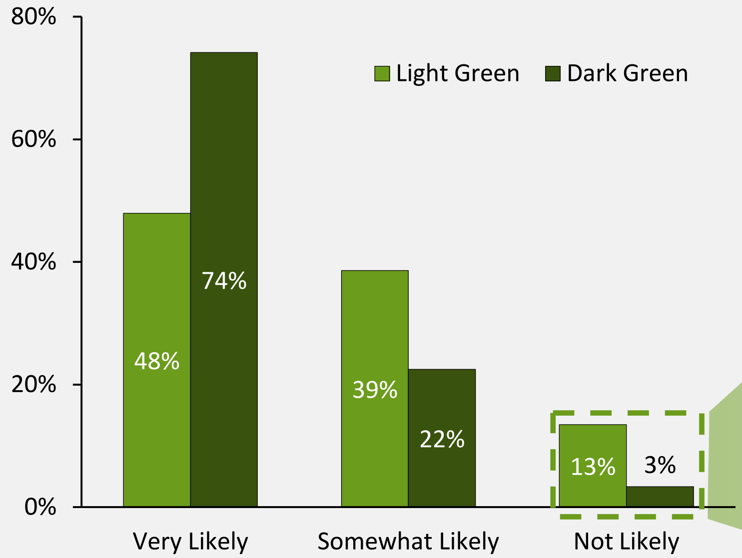
Communicating Green: Ratings & Rankings

To illustrate that green consumers are eager to find a trusted source that will help them navigate through green products, we asked them how interested they would be in a universal system. Over 50% of all green consumers stated they would be very likely to use a “greenness” rating to compare products, even if that was provided by the retailer

Hypothetical Scenario

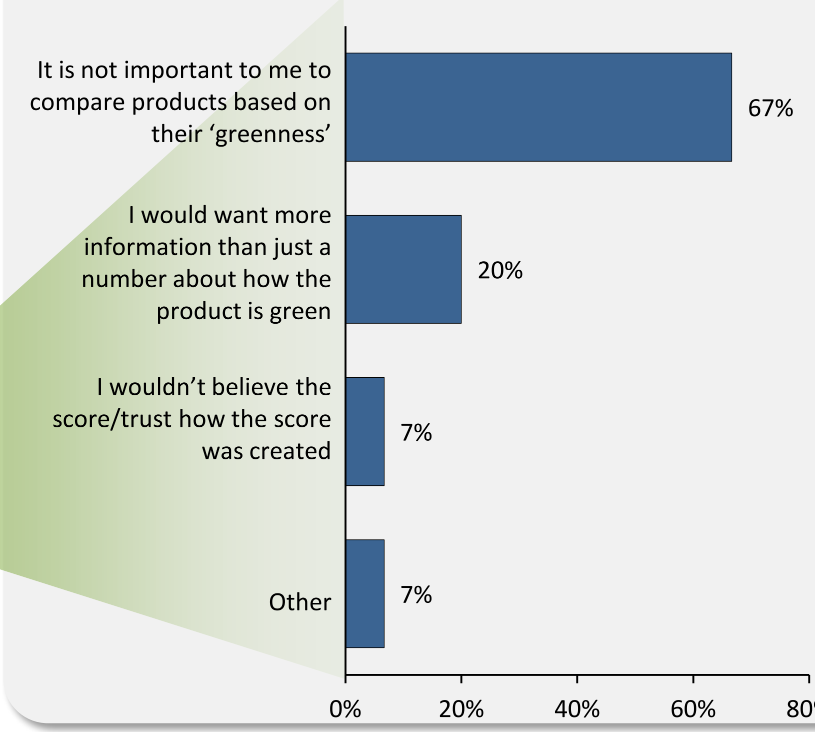
If the local retailer posts a score of 1-100, rating the “greenness” of each product, how likely are you to use this score to compare products?

Consumer Perspectives about Score on “Level of Greenness” of Certain Products (n=698)



51%	37%	12%
Total percentage of green consumers ('light' and 'dark') (n=698)		

Factors for Consumers Not Using Green Score (n=30)



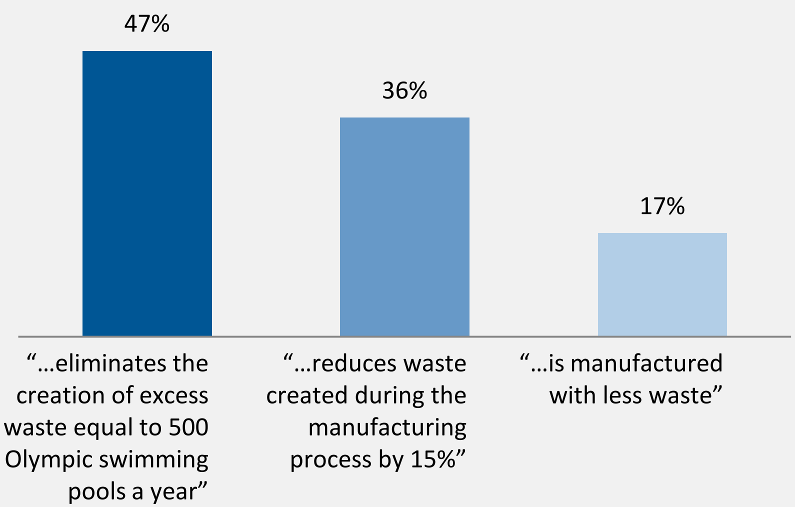
Note: [1] Including 2 categories (Very Likely, Likely); [2]Including 2 categories (Not Likely, Not at all Likely)
Q9 Suppose your local retailer posted a score between 1-100 that rated the ‘greenness’ of each product on the store shelf. How likely would you be to use this score to compare products?
Q9a What is the primary reason you would not use the score?

Communicating Green: Product Claims

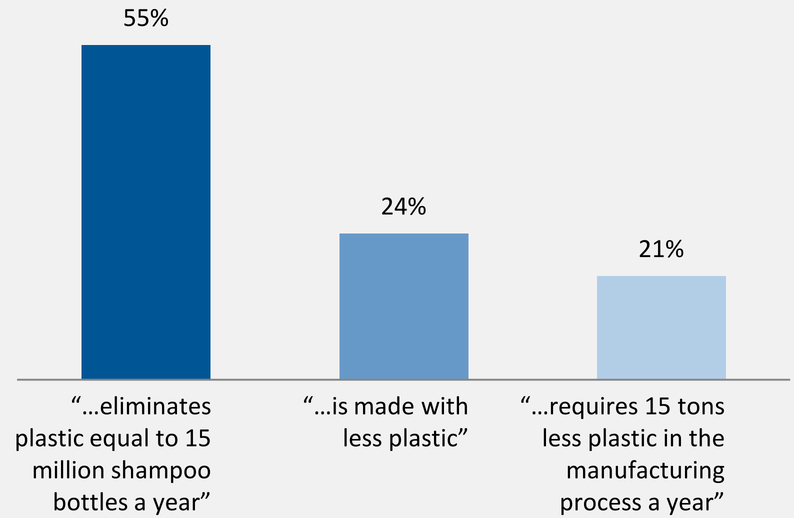
Consumers are more likely to find green claims compelling if they provide quantitative information, in an easy to visualize description of the impact the product has on the environment

What green claims do consumers find most compelling…

when buying a new, green couch?



when buying shampoo with an ecofriendly bottle?



Q10: For each of the following hypothetical products, which of the three claims is the most compelling to you?

Top Green Brands by Perception

Companies are often perceived by consumers as green, even if they do not exclusively manufacture green products. Knowing how to articulate your company's green attributes well can make you a top of mind green company

What comes to consumers' minds when they think of a green company…

…In 2009[1]

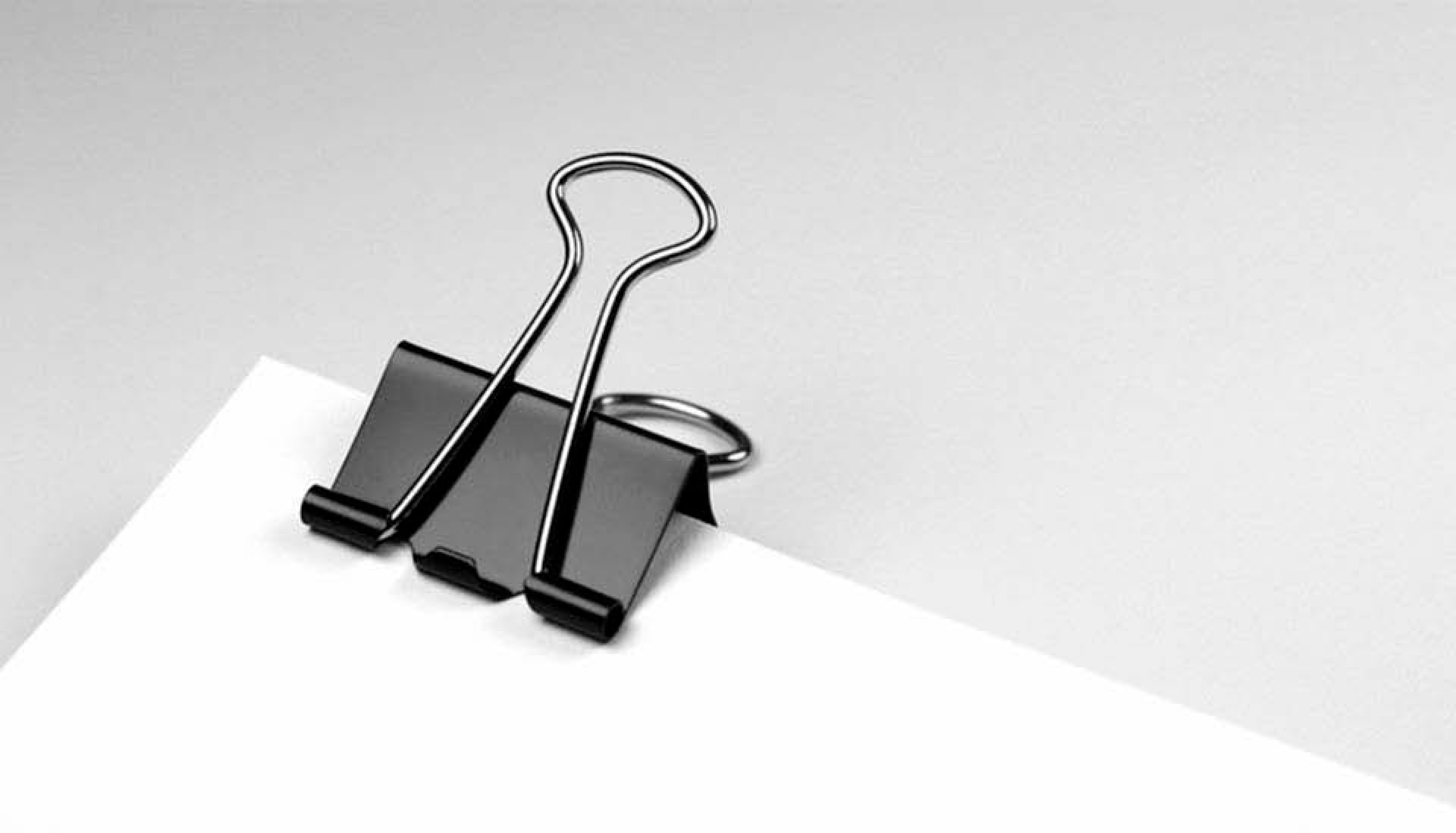
1	seventh GENERATION	17%
2	GE	13%
3	TOYOTA	9%
4	WHOLE FOODS MARKET	9%
5	TRADER JOE'S	8%

(Clorox Not Ranked in 2009 Top 5)

…in the 2011 analysis

1	GE	13%
2	seventh GENERATION	8%
3	TOYOTA	6%
4	WHOLE FOODS MARKET	6%
5	THE CLOROX COMPANY	4%

Note: [1]Source: 2009 The Green Revolution Study; [2]All percentages represent the % of consumers who mentioned the company as one of the top 3 green companies that come to their mind
Q12a: What are the top companies that come to your mind when you think of a green company?

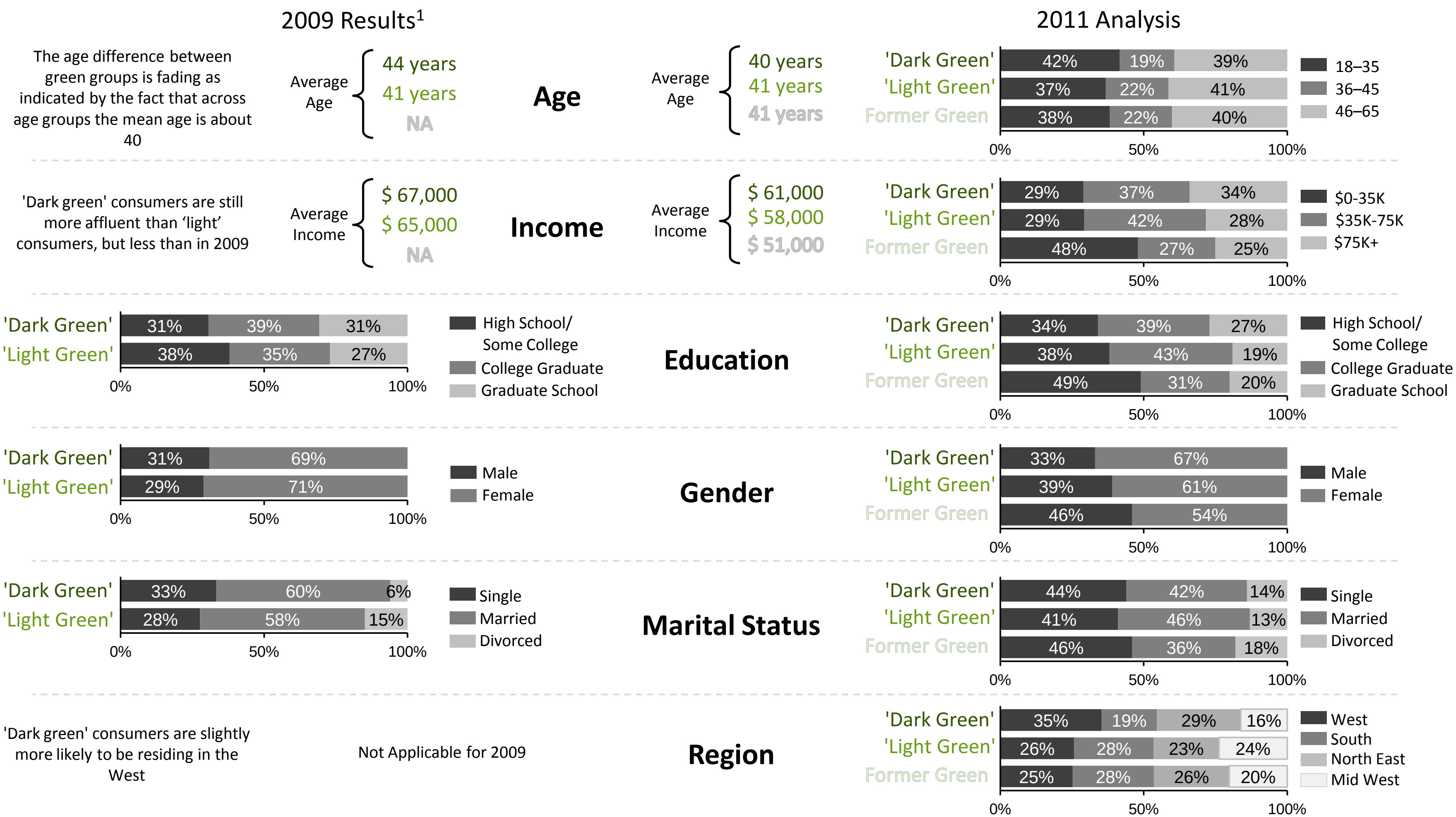


Survey Respondent Demographics

Green Consumer Profile

The profile of green consumers is becoming less niche and more mainstream America

Demographics of Green Consumers



Note: [1]*Source: 2009 The Green Revolution Study*, and 'Former green' category was removed due to small sample size; 18-65 US Population (in 2010) – average age: 41 years, 28% have college degree and 9% have graduate degree, 60% are male, and 54% are married; median income in 2009 for the age group of 25-64 years was about USD 60,000

Source: US Census Bureau; Grail Primary Research Analysis

For More Information Contact:

- **Grail Research** (info@grailresearch.com)